BOBBY JINDAL
GOVERNOR

PEGGY M. HATCH
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

Certified Mail No.

Agency Interest (AI) No.: 3116
Activity No.: PER20080014

Mr. R. William Wuensche
Vice President/General Manager
Alon Refining Krotz Springs, Inc.
P. O. Box 453
Krotz Springs, LA 70750-0453

RE: Prevention of Significant Deterioration (PSD) Permit, PSD-LA-745, Krotz Springs Refinery, Alon Refining Krotz Springs, Inc., Krotz Springs, St. Landry Parish, Louisiana

Dear Mr. Wuensche:

Enclosed is your permit, PSD-LA-745. This PSD permit consolidates and replaces all existing PSD permits for the Krotz Springs Refinery. The following PSD permits for this facility are hereby rescinded:

PSD-LA-140	issued August 7, 1979; amended October 9, 1980
PSD-LA-286a (M-1)	issued April 5, 1982
PSD-LA-373	issued April 5, 1982
PSD-LA-232	issued January 8, 1980
PSD-LA-278a	issued February 13, 1980
PSD-LA-504 (M-1)	issued April 22, 1990

Should you have any questions, contact Dr. Qingming Zhang of the Air Permits Division at (225) 219-3044.

Sincerely,

Cheryl Sonnier Nolan
Assistant Secretary

_____
Date

CSN:QMZ

c: US EPA Region VI

BRIEFING SHEET

Krotz Springs Refinery
Agency Interest No. 3116
Alon Refining Krotz Springs, Inc.
Krotz Springs, St. Landry Parish, Louisiana
PSD-LA-745

PURPOSE

This permit action is to consolidate all PSD permits for the referenced facility into a single PSD permit. It also deletes sources that were removed or never built and updates PSD permit terms and conditions.

RECOMMENDATION

Approval of the proposed consolidated PSD permit.

REVIEWING AGENCY

Louisiana Department of Environmental Quality, Office of Environmental Services, Air Permits Division

PROJECT DESCRIPTION

The Krotz Springs Refinery site historically consisted of two adjacent facilities operating as "Hill Petroleum" and "Ventech (Cypress) Refining". Hill Petroleum began operation in 1975. The following PSD permits have been issued to this facility:

PSD-LA-30 (issued September 20, 1977)
PSD-LA-140 (issued August 7, 1979; amended October 9, 1980)
PSD-LA-286a (issued March 7, 1980)
PSD-LA-286a (M-1) (issued April 5, 1982, a modified permit to PSD-LA-286a)
PSD-LA-373 (issued April 5, 1982)

Permit PSD-LA-30 was rescinded on October 2, 1996 after all sources under that permit have been removed from service.

Ventech (Cypress) Refining began operation around 1980. The following PSD permits have been issued to this facility:

PSD-LA-232 (issued January 8, 1980)
PSD-LA-278a (issued February 13, 1980)
PSD-LA-504 (issued January 3, 1984)
PSD-LA-504 (M-1) (issued April 22, 1990, a modified permit to PSD-LA-504)

Around 1984, the two adjacent facilities merged under the "Hill Petroleum" name, then file Chapter 11 Bankruptcy shortly thereafter. The firm of Salomon subsequently purchased the combined facility. Through 1997, the facility operated under the names of Hill Petroleum, Phibro Refining, and Basis Petroleum. The facility name was then changed to Krotz Springs Refinery.

Since many of the PSD permit terms and conditions are obsolete and conflict with each other or conflict with those in the Part 70 operating permit for the facility, it is necessary to update and consolidate all the PSD permit terms and conditions in this permit. No new project is proposed with this PSD permit. The

sources that were permitted in above mentioned PSD permits but were never constructed or removed from service are omitted from this permit.

TYPE OF REVIEW

The application was reviewed in accordance with PSD regulations.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

BACT for NO_X, VOC, and SO_2 was previously determined in the permits PSD-LA-140, PSD-LA-286a (M-1), PSD-LA-373, PSD-LA-232, PSD-LA-278a, and PSD-LA-504 (M-1). The BACT determination is updated and summarized in the table below:

Affected Unit	BACT Determination
Heaters/Boilers/Reboilers: H-2001, H-2002, H-2003, H-2004, B-8001, B-8002, H-4201, B-8202, B-8203	NO_X BACT: Low-NO_X Burners.
Storage Tanks: 15-1, 15-2, 30-5, 30-6, 30-7, 30-8, 55-2, 55-3, 55-4, 55-5, 55-6, 55-7, 80-1, 80-2, 80-3, 80-4, 80-5, 80-6, 80-7, 80-8, 80-9, 80-10, 100-1, 100-2, 125-1, 100-4, 150-1, 150-2, 55-8, 55-9, 55-10, 100-5, 100-6, 80-11, 80-12, 80-15, 30-9	VOC BACT: Applicable NSPS Subpart K, Ka, Kb.
Storage Tanks: 5-1, 55-11, 55-12, 80-13, 80-14	VOC BACT: Not control required.
Process Fugitives	VOC BACT: Louisiana Consolidated Fugitive Emission Program.
FCCU Regenerator (1-85)	CO BACT: NSPS Subpart J; SO_2 BACT: NSPS Subpart J; PM BACT: NSPS Subpart J; NO_X BACT: 110.0/220.0 ppmv (365/7 day rolling average)
Ammonium Thiosulfate Unit (2-85)	SO_2 BACT: NSPS Subpart J for sulfur recovery plant
Loading Docks 3, 4, and 5 (23-79, 24-79, and 18-85)	VOC BACT: Submerged fill loading
Water Collection and Treatment System (4-77)	VOC BACT: NSPS Subpart QQQ
Cooling Towers (54-81)	VOC BACT: Louisiana Refinery MACT Determination for Cooling Towers (dated July 26, 1994)

Note that the NO_X BACT emission limits for FCCU Regenerator, 110.0/220.0 ppmv (365/7 day rolling average), are the limits established in the Consent Decree (Action No. SA-05-CA-0569, Date of Entry 11/23/2005).

BRIEFING SHEET

Krotz Springs Refinery
Agency Interest No. 3116
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PSD-LA-745

AIR QUALITY IMPACT ANALYSIS

No new project is proposed with this permit action. Emissions associated with the facility were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

ADDITIONAL IMPACTS

Soils, vegetation, and visibility will not be adversely impacted by the proposed facility, nor will any Class I area be affected.

PROCESSING TIME

Application Dated:	October 9, 2008
Application Received:	October 16, 2008

PUBLIC NOTICE

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in the *[Local newspaper]*, on [date]. The public notice was also sent to persons included in the LDEQ mailing list on [date]. The proposed permit was submitted to US EPA Region VI on [date]. All comments will be considered prior to a final permit decision.

SPECIFIC CONDITIONS

Krotz Springs Refinery
Agency Interest No. 3116
Alon Refining Krotz Springs, Inc.
Krotz Springs, St. Landry Parish, Louisiana
PSD-LA-745

1. The permittee is authorized to operate in conformity with the specifications submitted to the Louisiana Department of Environmental Quality (LDEQ) and subject to the following emissions limitations and other specified conditions.

MAXIMUM ALLOWABLE EMISSIONS RATES

ID No.	Description	Units	PM_{10}	SO_2	NO_X	CO	VOC
1-78	Crude Reformer Heater H-2001	lb/MM Btu			0.120		
2-78	Hydrotreater Charge Heater H-2003	lb/MM Btu			0.120		
3-78	Hydrotreater Stabilizer Reboiler H-2004	lb/MM Btu			0.120		
4-78	Reformer Stabilizer Reboiler H-2002	lb/MM Btu			0.120		
7-78	Steam Boiler B-8001	lb/MM Btu			0.120		
19-85	Steam Boiler B-8002	lb/MM Btu			0.120		
3-85	FCCU Charge Heater H-4201	lb/MM Btu			0.120		
6-85	Steam Boiler B-8202	lb/MM Btu			0.120		
7-85	Steam Boiler B-8203	lb/MM Btu			0.120		

2. Permittee shall continuously monitor and record flue gas oxygen concentrations and firebox temperatures in accordance with the attachment "Use of Flue Gas Oxygen Monitors for Combustion Controls" for the Heaters/Boilers H-2001, H-4201, B-8001, B-8002, B-8202, B-8203.

3. Heaters H-2002, H-2003, and H-2004 shall be fired only under low excess air (LEA) conditions. These heaters shall be monitored for excess air on at least a weekly basis by an oxygen monitor or Orsat, with a manual readjustment of the burners.

4. Docks 3, 4, and 5 (23-79, 24-79, and 18-85) shall use submerged fill loading at all times.

5. The FCCU Regenerator (1-85) shall comply with all provisions of 40 CFR 60 Subpart J, as such provisions relate SO_2 emissions, by June 30, 2010.

6. As established in the Consent Decree (Action No. SA-05-CA-0569, Date of Entry 11/23/2005), the FCCU Regenerator (1-85) shall not discharge or cause discharge into the atmosphere any gases that contain nitrogen oxides (NO_X) in excess of 110.0 ppmvd (at 0% O_2), as a 365-day rolling average, or 220.0 ppmvd (at 0% O_2), as a 7-day rolling average.

SPECIFIC CONDITIONS

Krotz Springs Refinery
Agency Interest No. 3116
Alon Refining Krotz Springs, Inc.
Krotz Springs, St. Landry Parish, Louisiana
PSD-LA-745

7. The Ammonium Thiosulfate Unit (2-85) shall meet the SO_2 emission limitation of 40 CFR 60 Subpart J for Claus sulfur recovery plant (250 ppmvd). Compliance shall be demonstrated by stack testing. (Stack test was conducted on June 16, 1983.)

8. Permittee shall comply with the Louisiana General Conditions as set forth in LAC 33:III.537. [LAC 33:III.537]

USE OF FLUE GAS OXYGEN MONITORS FOR COMBUSTION CONTROLS

Within the time limits specified in Louisiana Air Emission Permit General Condition VIII (LAC 33:III.537), the permittee shall determine the emissions of nitrogen oxides (NO_X) and carbon monoxide (CO) from the permitted combustion device in accordance with test methods and procedures set out in 40 CFR 60, Appendix A, Methods 7E* and 10 respectively. These emission determinations shall be made at:

1) Maximum design capacity; and

2) Normal operating load.

The permittee shall install a continuous oxygen monitor in the flue gas of the permitted combustion device which meets the requirements of 40 CFR 60, Appendix B, Performance Specification 3. A range of excess air shall be established. The range shall be the oxygen content associated with NO_X and CO emission rates in the PSD permit, or, where a PSD limit does not exist, the appropriate limit in this permit. The range shall be determined such that the appropriate NO_X and CO limits are not exceeded.

Combustion temperature and oxygen content shall be continuously recorded. Alarms shall be set to sound when the flue gas oxygen content or combustion temperature are outside of this established range and corrective action shall be taken any time an alarm is sounded. These records and records of alarm and corrective actions shall be maintained on site and available for inspection by the Office of Environmental Compliance, Surveillance Division.

Should any combustion equipment modifications be made such as different type burners, combustion air relocation, fuel conversion, tube removal or addition, etc., emissions corrections as described above shall be conducted with 60 days of attaining full operation after such modification. Results of all emission determinations shall be sent to the permitting authority within 45 days after completion of the tests.

* A properly installed and calibrated continuous NO_X monitor may be substituted for Method 7E.